BC Geological Survey Assessment Report 32071

### **GEOPHYSICAL REPORT**

ON A

## **MAGNETIC SURVEY**

### ON THE

### NAP PROPERTY

### NAPIER LAKE, STUMP LAKE AREA,

### KAMLOOPS MINING DIVISION, BRITISH COLUMBIA

LOCATED:	28 km south of the city of Kamloops	
	50° 41'North Latitude, and 120°27' West Longitude	
	NTS: 92I/08	
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\*The maps were produced at these scales but may be reduced to fit within the report and thus have a smaller scale.

### **SUMMARY**

A grid was emplaced and a magnetic survey was carried out along that grid within the Nap Property which is located to the immediate east of Napier Lake just north of Stump Lake area about 28 km south of Kamloops within the Kamloops Mining Division of B.C.

The Nap Property is underlain by the Nicola which consists of volcanics and sediments as well as Kamloops volcanics. The Nap showing occurs within a well-developed fracture system striking east and is occupied by dense siliceous rock. Mineralization consisting of chalcopyrite and minor sphalerite is associated with 1 to 10 per cent finely disseminated pyrite within the siliceous zone. Gossans are exposed in several areas.

The main purpose of the exploration program was to extend the known mineralization within the Nap Showing as well as to locate previously unknown mineralization. The purpose of the magnetic survey was to map geology since the property is widely covered with overburden and there is little rock exposure.

A grid was first emplaced on the property by putting in flagging on 0.67 meter long wire into the frozen ground every 25 meters along survey lines that were put in at a 100-meter interval. This resulted in 18 survey lines each being 650 meters long for a total survey length of 11,700 meters.

The magnetic survey was carried out on the emplaced grid with two proton precession magnetometers, with one being a base station, by taking readings every 12.5 m over the 18 lines for a total survey length of 11,650 meters. The readings were then diurnally corrected and then plotted onto a base map at a scale of 1:10,000, and contoured.

### **CONCLUSIONS**

- 1. The magnetic survey revealed a magnetic field over the grid area that was of low intensity varying only 245 nT. This is usually a reflection of sedimentary rock-types.
- 2. Lineations of magnetic lows and magnetic highs are prominent within the grid area with the two main directions being north-northwesterly and east-northeasterly. The magnetic low lineations are probably reflecting geological structure such as faults and shear zones, and the magnetic high lineations are probably reflecting intrusive dykes.

### **RECOMMENDATIONS**

There are no recommendations at this point since the magnetic survey has since been followed up by an IP/resistivity survey and recommendations will be given in that report.

### **GEOPHYSICAL REPORT**

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## **INTRODUCTION AND GENERAL REMARKS**

This report discusses survey procedure, compilation of data, interpretation methods, and the results of a magnetic survey carried out on the Nap Property which is located to the south of Kamloops, BC, and is operated by Dakar Resource Corp.

The exploration work was carried out by a Geotronics crew of four to eight men during the period of December 1<sup>st</sup> to 7<sup>th</sup>, 2010. The amount of work carried out was as follows:

WORK TYPE	WORK AMOUNT
Grid Emplacement	11,700 meters
Magnetic Survey	11,700 meters

The purpose of the exploration program on this property is to look for gold mineralization, possibly associated with silver values. The type of deposit being explored for may be similar to the nearby Stump Lake Mine, a past producer.

The purpose of the magnetic survey is to map lithology and structure since the property is widely covered by overburden with little rock outcrop.

### PROPERTY AND OWNERSHIP

The property is comprised of 6 contiguous tenures that comprise an area of 2,059 ha and occurs within the Kamloops Mining Division as shown on figures #2 and #3. These tenures occur on BC Mineral Title map sheet M0921N.049.

Tenure Number	<u>Type</u>	Claim Name	Expiry Date	<u>Area</u> (ha)
<u>594401</u>	Mineral	NAP 1	Feb. 28, 2012	473.6141
<u>681063</u>	Mineral	NAP EAST	Feb. 28, 2012	411.8365
<u>681064</u>	Mineral	NAP SOUTH	Feb. 28,2012	391.3455
<u>681083</u>	Mineral	NAP NORTH	Feb. 28, 2012	205.8629
<u>835188</u>	Mineral	NAPNW2	Feb. 06, 2012	391.16
<u>835189</u>	Mineral	NAPW2	Feb. 06,2012	185.3699

Total Area: 2059.1889 ha

These claims are owned by Leo Lindinger and are being optioned to Dakar Resource Corp.

The expiry date shown assumes the assessment work as described within this report is excepted for assessment credits.

### LOCATION AND ACCESS

The Nap Property is located within the southern section of British Columbia, as shown on figure #1, 28 km to the south of the city of Kamloops and 242 km to the northeast of Vancouver. It contains Napier Lake, and is a few kilometers northeast of Stump Lake.

This property occurs within NTS map sheet number 92I/08. For the center of the property, the latitude is  $50^{\circ}$  41' North and the longitude is  $120^{\circ}$  27' West. The property boundaries occur within UTM co-ordinates 690000 and 697000 east; and 5586000 and 5591000 north.

Access to the property is via the old Kamloops-Merritt Highway (Hwy. 5a), then by the "Hillcrest" range road running south from the Roche Lake Road to the east side of the claims. Closer access is available via gated drives on the north side of the claims. Access from the northwest (Highway 5a) is via an old wagon road up the creek draining the property. Access from the south is also available from the Stump Lake Ranch Road. Water is available on the west side, from Napier Lake, or from small lakes along the north and east sides of the claims.

### **PHYSIOGRAPHY AND VEGETATION**

The property lies in the semi-arid Intermontane climatic zone. Rainfall is less than 50 cm per year, and temperatures range from - 30 to +30 degrees centigrade. Topography is moderately

rolling tall grass prairie with occasional groves of ponderosa pine, interior fir and groves of poplar.

Napier Lake at an elevation of 720 meters, near the west side of the property is the lowest part of the claims. It occupies the south end of a north draining steep walled glacial spillway of the Campbell Creek drainage basin. The highest point on the property is at 1250 meters on the east part of claim 681063 4 km east of Napier Lake.

### HISTORY OF PREVIOUS WORK

In 1973 Newconex Canadian Exploration Ltd. staked and worked the then undiscovered Nap Occurrence (Rebagliati 1973). The claims were staked over a pronounced quartz-sericite-pyrite "stain". Initial work consisted of soil sampling for copper and zinc, ground magnetic and geological mapping. A 2 km by 0.7 km zone of interest was outlined by this preliminary program. A follow-up program of 12 widely spaced percussion drill holes was completed later that year. 5 holes on the eastern half of the property were drilled primarily on overburden covered magnetic anomalies, whereas the 7 westerly holes were drilled into the highest copper in soil anomalies. Most holes intersected low grade copper-zinc+/-gold mineralization including 33.5 m grading 0.21% copper reported from hole P73-11. Hole P73-08, 350 meters southeast of P73-11 reported 0.19% copper over 18.3 meters. Hole P73-09, 300 meters southeast of P73-11 and 170 metres southwest of P73-08 reported 230 ppb gold over 3.1 meters within a 15 m (hole length) zone of elevated gold values bordered by a wider length of weakly anomalous copper-zinc mineralization. Hole P73-03, 900 meters to the east of the P73-08 intersected altered and mineralized material at the bottom of the hole;

During 1974 Newconex completed a vertical loop EM survey over the known mineralized area during 1974. The claims were then allowed to lapse.

In 1987 Warner Gruenwald and Douglas Lieshman staked a 12 unit claim over the occurrence. Between 1987 and 1990 Gruenwald and Lieshman established an orientation grid and conducted soil and rock geochemistry of surficial and shallow test pit material. They also completed detailed ground magnetic and VLF electromagnetic surveys over the areas of known mineralization.

Near surface bedrock sampling of mineralized material reported over 10,000 ppm copper, up to 8,000 ppm zinc, and 540 ppb gold. Molybdenum was locally anomalous. They partially outlined several moderate gold anomalies southeast of the area tested by Newconex. The claim was allowed to lapse.

The Nap Occurrence was staked as the EPI 1-8 Claims by the Leo Lindinger on October 12, 1994.

An exploration program in 1995 confirmed the nature of the mineralization, found evidence of Tertiary aged hydrothermal alteration and mineralization and determined the extent and nature of the glacial and post glacial cover. The claim package was enlarged to a 20 unit size on March 17, 1996.

A multiphased exploration program of geological mapping, rock and soil sampling, ground magnetics, prospecting and backhoe trenching was completed between September 1 and December 26, 1996. The trenching program greatly expanded the gold and copper potential of the mineralized shear zone. This program was aided by a \$7,600.00 prospectors grant. The best base metal and gold mineralization occurs in pre-Tertiary exposures containing secondary biotite with overprinting quartz-pyrite alteration and quartz crackle breccias. Mercury to 325 ppb occurs in epithermal style argillically altered structures. Hydrothermally altered rhyolite containing structurally controlled quartz-carbonate-pyrite stockwork veining and dykelets of basalt and later hematite stockwork veins report up to 410 ppb mercury;

Trench 96-14 averaged 440 ppb gold, 0.08% copper over a 43.5 meter width, with a high of 1.9 g/t gold over 5 meters. The copper, zinc, lead and silver mineralization occurs extensively weathered brittle fracture zones, thus the actual pre-weathered metal content may be much higher. The best gold mineralization appears to be associated with strongly silicified and hydro-brecciated rock. Trench 96-10, 50 meters north of south dipping percussion Hole 73-P11 returned 1825 ppm (0.18%) copper and 130 ppb gold in highly oxidized bleached and pyritized Nicola schists. Trench 96-12 about 50 meters southeast of P73-09, partially exposed a second mineralized zone at its south end. The best values are in brown biotite schist. This zone may be the target that hole P73-09 tried unsuccessfully to penetrate;

In March 2003 a small geochemical sampling program slightly enlarged to the south east the still open ended "NAP Gold Zone". The small program resulted in gold in soils up to 650 ppb. The core of the partially defined anomaly strikes from Trench 96-14 to the south southeast.

On December 3, 2009 The author completed a single line of soil samples south of and "down ice" of the area trenched in 1996 that partially exposed anomalous to highly anomalous copper, gold, silver and zinc mineralization in bedrock. A total of 20 soil samples and 2 rock float samples were taken. No field standards or blanks were inserted into the sample steam for this program.

Only the area south of Trench 14 which hosts a historic 0.44 g/t gold and 0.08% copper and 2 g/t silver over 43.5 meters of sampled bedrock returned anomalous copper, and lead results. Weakly anomalous zinc with gradually increasing values to the east occurred over the east half of the line. Gold values were weakly anomalous and silver values very weakly anomalous. The rock samples were from stations 10N 21+20E and 23+80E. Both rocks were oxidized, silicified crackle brecciated Nicola metasedimentary biotite gneiss. Both rocks returned anomalous gold, silver copper lead and zinc values. The gold was at least 4 times the corresponding soil results, copper and lead 3 to 4 times the soil results and zinc returned similar results to the soils. Silver returned 2 to over 5 times the corresponding soil results.

### **GEOLOGY**

This sections was taken from Lindinger's report on the property which he wrote in 2010.

#### (a) Regional

The Napier Lake - Stump Lake region is located within the Intermontane Superterrane and underlain predominantly by rocks of the Triassic to early Jurassic island arc volcanics, derived sediments and intrusives of the Nicola Group portion of the Quesnel Terrane (Figure 3).

The oldest common lithologies in the area are middle to late Triassic aged greywackes, argillites, limestones and alkalic tuffs of the eastern "sedimentary belt". These are overlain to the west by latest Triassic alkalic flows and related breccias of the eastern volcanic belt. These packages are interpreted to represent remnants of an extensive back arc suite of rocks known to extend the entire length of British Columbia.

Intruding these rocks are coeval to slightly later (Late Triassic and earliest Jurassic) calcalkalic batholithic sized intrusive bodies such as the Wild Horse and Guichon Batholiths; and plugs, stocks and small batholiths of dominantly alkalic rocks such as the Iron Mask Batholith near Kamloops. These intrusive rocks are often host to significant porphyry copper mineralization.

These island arc rocks were obducted against western North America during the mid Jurassic. Fabrics generated by this dextral transpressive tectonic event were northeast directed folding, shearing and regional southeast striking southwest dipping thrust faulting.

Erosion from the mid Jurassic to the early Tertiary exposed collision generated semi ductile deformation fabrics. These southeast striking penetrative fabrics now characterize large areas pre-Tertiary lithologies in the region.

Mid Cretaceous sinistral changing to Early Tertiary dextral transtensional activity generated regional north striking dextral faults with subordinate northeast and east striking "basin and range" block faults. This activity truncated the older southeast striking transpressive structures and created numerous variably shaped fault bound basins. Intrusive and extrusive activity contemporaneous with this widespread tectonic change is often related to emplacement of numerous gold and copper gold deposits throughout western north America.

Locally thick Kamloops Group deltaic and lacustrine sediments were deposited in these structural basins. These sediments, and the older lithologies were intruded and overlain by bimodal subaerial rhyolitic and slightly later basaltic volcanic deposits. Once such centre is located in the Napier Lake area where locally thick accumulations of rhyolite and basalt, with minor andesite flows, tuffs and breccias occur. Related? intrusive activity in the Stump Lake - Napier Lake region may have generated locally extensive hydrothermal alteration and accompanying copper-gold-zinc-silver bearing sub volcanic porphyry to gold-silver bearing epithermal environments.

Miocene Basaltic deposits occur to the north.

The area is covered by a thin to moderately thick glacial till cover with recessive areas often containing thick Pleistocene to Recent accumulations of consolidated and unconsolidated glacial, interglacial and post glacial sediments.

### (b) **Property**

#### Lithology and stratigraphy

The oldest rocks exposed on the NAP claims are Nicola Group mid to late Triassic metasediments assigned to the eastern sedimentary facies, and eastern belt subaqueous alkalic mafic flows and tuffs assigned to the Kamloops Group. The sedimentary package on the western part of the property contains rare deformed and boudined dykes, sills or flows of ,,ultramafic" medium grained crowded hornblende porphyry (called lamprophyre by earlier authors) that may be related to mafic tuffs more common west of the property. Crowded hornblende porphyry fragments have also been located within sediments on the property. Whole rock analyses indicates that the hornblende porphyry is normatively similar to ,,pothook diorite" of the Iron Mask Batholith some 25 km north.

The Nicola rocks exposed on the property form an inverted T, with east striking steeply south dipping exposures trending from the west central side of the property for about 1.2 km to the east and southeast in two large outcrop groups, and to the north as irregular north striking west dipping exposures 0.2 to 1 km east of Napier Lake.

The latest Triassic to early Jurassic calc-alkalic (dioritic) Wildhorse Batholith intruded the Nicola lithologies. Parts of this batholith are exposed along the northeast side of the claims. The intrusive contact zone with the Nicola sediments are very recessive and rare exposures (off the property) of the intrusive are often strongly to intensely carbonate and clay altered.

The harder more resistant and outcropping meta-sediments along this contact appear to be thermally metamorphosed to a biotite hornfels, especially in the central area of the claims. Regionally extensive middle to upper greenschist metamorphism have imparted schistose to weakly gneissic fabrics to both the Nicola and Wildhorse lithologies. The crowded hornblende porphyry, due to its composition, appeared to resist deformation, retaining much of its original fabric and behaving brittley, forming boudins within the surrounding schistose metasediments.

The east trending outcrops in the south have a strongly developed foliation coincident with east to southeast striking steeply south dipping isoclinal folding and shearing related to a major 90 to 110 degree striking steeply to moderately south dipping shear zone called the Nap Shear Zone ("NSZ"). The displacement on the "NSZ" is unknown. The Nicola lithologies have very different orientations north and south of the Shear. It may be part of a deeply eroded exposure of a thrust or reverse fault developed along and near the intrusive contact with the Wildhorse Batholith during the Jurassic transpressive tectonic regime generated by the docking of Quesnellia with North America.

The Nicola rocks are intruded by and unconformably overlain by subaerial felsic and later? basaltic dykes, flows and tuffs assigned to the Eocene Kamloops Group. Kamloops Group rhyolite, basalt and andesite intrude and cover areas to the north, south, east and west of the Nicola exposures. A felsic volcanic center may occur in the Napier Lake valley west of the claims. Here numerous north, northwest and east striking steeply dipping quartz eye porphyry rhyolitic feeder dykes and plugs, intrude remnant subaerial flow, autobreccia, breccia dyke and tuff deposits. Felsic tuffs are known to extend to the east central part of the property.

A mafic volcanic center complex occurs 1 km south west of the claims at the south end of Napier Lake. Basalt flow deposit partially surround the claims, overlying the Nicola and rhyolite exposures. Small east striking steeply dipping basaltic to andesitic breccia dykes are found near Napier Lake.

Glacial till and later fluvially reworked deposits cover recessed areas.

#### **Structure, Alteration and Mineralization**

The dominant structural feature on the NAP property is the "NSZ". The "NSZ" is visible as pronounced over 2 km long by up to 700 meter wide 110 degree striking steeply south dipping quartz-sericite-pyrite altered package of Nicola metasediments. A local subordinate 1600 striking schistosity is often present. North of the "NSZ" bedding parallel foliation for the northern outcrops tends to be northerly and steeply west dipping.

Small felsic dykes (that may be related to the nearby felsic volcanics) are found within deeply eroded parts of the "NSZ". The dykes are strongly silica flooded, contain polygonal brittle fractures and evenly disseminated pyrite. Adjacent to the intrusives are sheared, yellow, sericite and clay altered schistose metasediments that host fabric parallel stringer, disseminated and stockwork pyrite mineralization (sericite-pyrite+/-quartz alteration). Further east, at higher elevations, in less deeply eroded parts of the "NSZ" and adjacent (hanging wall) rocks to the south, pervasive silica-pyrite flood and crackle breccia zones apparently overlie the dyke. The silica flooding in the crackle breccia is often more intense along open fracture walls. This alteration appears to grade into and locally overprinted a distinctive brown hornfelsic weakly pyritic biotite schist. Small recrystallized limestone lenses within these altered metasediments contain fine grained evenly disseminated secondary black biotite, pyrite, chalcopyrite and minor sphalerite. The sericite-pyrite-quartz and brown biotite alteration grade into argillic and propylitic alteration haloes that surround the "NSZ". Altered calcareous units within the propylitic zone contain epidote and disseminated pyrite.

Quartz eye rhyolite flows near the "NSZ" (and other east striking structures north of the property) are often strongly clay altered with carbonate +/- rare pyrite and hematite stockwork veining.

Chalcopyrite mineralization is the dominant economic sulphide found on the NAP Property. It occurs as fracture hosted platy stringers, loose aggregates, and fine grained

disseminations within brown biotite schist, and especially in calcareous siliceous (silicified?) metasediments. Chalcopyrite is found as very fine grained fracture coatings in the siliceous crackle breccia. Sphalerite mineralization occurs as rare stockwork.

Gypsum occurs as paper thin to 1 mm veins found in the late stage brittle silicified crackle breccia zones.

Gold-silver mineralization usually accompanies the copper-zinc mineralization. However know gold mineralization occurs at higher elevations than the base metals. A possible later phase of gold mineralization also appears to be accompany the structurally controlled siliceous (and gypsum) crackle breccia base metal poor phase.

Anomalous mercury has been detected in argillic altered Tertiary structures in both Nicola and Tertiary rhyolite rocks.

### (c) Minfile Occurrences Within the Nap Property

#### i. Nap Showing

(Minfile no. 092ISE.169 at UTM coordinates 693094N and 5588459E within the center of the Nap Property. The following description is taken from BC Maplace.)

The Nap occurrence is underlain by hornfelsed pyroclastic rocks of the Upper Triassic Nicola Group. To the northeast these are intruded by the Lower Jurassic granodiorite Wild Horse Intrusion. Locally this intrusion consists of coarse-grained gneissic granite with late-stage east striking lamprophyre dykes. Rhyolitic to basaltic flows of the Eocene Kamloops Group unconformably overlie the Mesozoic rocks.

Nicola Group volcanic rocks have been extensively sheared and silicified and are pyritic. A well-developed fracture system strikes east across the Nap showing and is occupied by dense siliceous rock. Mineralization consisting of chalcopyrite and minor sphalerite is associated with 1 to 10 per cent finely disseminated pyrite within the siliceous zone. Gossans are exposed in several areas.

### (d) Minfile Occurrences Near the Nap Property

#### i. Trump Showing

(Minfile no. 092ISE.161 at UTM coordinates 690695N and 5584322E and 5 km southsouthwest of the Nap Property. The following description is taken from BC Maplace.)

The property is underlain for the most part by Upper Triassic volcanic and sedimentary rocks belonging to the Nicola Group. These include augite porphyritic andesite, basalt, volcanic breccia and minor tuff and argillite. To the south, the Nicola Group rocks are in contact with a narrow zone of Mississippian-Triassic Cache Creek Group volcanics. The northern portion of the property is covered by Eocene flows of the Kamloops Group.

Faults and shear zones have a general north trend. An alteration zone approximately 100 metres wide strikes 020 degrees, north of Frisken Creek. Within and closely associated with this oxidized and fractured zone are quartz-calcite veins containing tetrahedrite, chalcopyrite, pyrite, malachite and azurite. Bornite and specular hematite occur as thin veinlets and magnetite, hematite, pyrrhotite and sphalerite occur in the quartz-calcite veins.

Grab samples from quartz and quartz-calcite veins assayed up to 1.0 per cent copper and 137.12 grams per tonne silver (Assessment Report 4165).

#### ii. Cindy Showing

(Minfile no. 092ISE.134 at UTM coordinates 687156N and 5584875E and 6.3 km west-southwest of the Nap Property. The following description is taken from BC Maplace.)

The Cindy occurrence is underlain for the most part by variably chloritized, epidotized and hematized andesitic flow breccias belonging to the Upper Triassic Nicola Group. Near the eastern boundary of the property the north trending Stump Lake fault forms the contact between the Nicola Group to the west and Eocene Kamloops Group volcanics to the east. Clastic sedimentary rocks ranging from siltstone to conglomerate outcrop near the south end of Kullagh Lake. Original compositional layering defines a northeast trending synform. The dominant structural feature is a conjugate fracture pattern. Fractures are oriented northwest to northeast and have no apparent offset. Alteration and mineralization are structurally controlled. The andesites are moderately fractured, with chlorite, kaolinite, carbonate or hematite lining the thin slips. Both magnetite and pyrite are present as disseminations (up to 5 per cent) within andesitic rocks.

Diamond-drill holes intersected chalcedonic quartz veins enveloped by variable pervasive silica and clay alteration. The veins are 1 centimetre to 1 metre in width, cryptocrystalline, massive to laminated, vuggy or brecciated, and form complex networks. Purple or green fluorite, and occasionally calcite are intimately associated with many of the veins. Pyrite occurs as fine disseminations and thin lenticular veinlets within the quartz veins and altered zones. Chalcopyrite is also evident. Coarse-grained milky white to grey quartz-carbonate veins are also present and tend to be more abundant at depth. A diamond-drill hole intersection across a 2.9-metre wide altered zone containing chalcedonic silica veining returned a best assay of 0.7 gram per tonne gold (Assessment Report 16075).

Canquest Resource Corporation conducted geological, geochemical and geophysical surveys and drilling from 1991 to 1997.

### iii. Redbird Showing

(Minfile no. 092ISE.179 at UTM coordinates 686915N and 5585547E and 7.3 km west-southwest of the Nap Property. The following description is taken from BC Maplace.)

The Redbird showing is underlain by andesitic flow breccia and minor intercalated conglomerate of the Upper Triassic Nicola Group which have been pervasively altered to lower greenschist facies. Approximately one kilometre east of the property, country rocks are cut by the north-northeast trending Stump Lake fault. Within the occurrence area, the dominant structural trend is northeast with numerous subordinate fractures trending northwest. Alteration and mineralization is structurally controlled. Zones of bleaching, oxidation and silicification reflect the regional trend, while more local alteration and quartz veining follow the subordinate direction.

One main zone of alteration comprises intense fracturing and pervasive silica and clay alteration. This zone is exposed over an area measuring 360 by 220 metres. The alteration mineralogy consists of chlorite, gypsum, epidote, fluorite, hematite, kaolinite, quartz and pyrite. Within this zone are quartz veins containing variable amounts of chalcedony, gypsum, fluorite and finely disseminated pyrite. The veins and some of their alteration envelopes host gold values up to 3.0 grams per tonne (Blanchflower, 1986).

Zoned quartz-fluorite veins (pyrite is present with an illitic mixed-layer clay) assayed 0.7 grams per tonne gold, 3.0 grams per tonne silver, 0.0074 per cent copper and 0.064 per cent molybdenite (District Geologist, 1985).

Canquest Resource Corporation conducted geological, geochemical, and geophysical surveys and drilling from 1991 to 1997.

### **GRID EMPLACEMENT**

The grid was emplaced with compass, chain, and GPS unit. It was started by putting in the baseline at the origin of the coordinates of 50 deg. 25'09"N, 120 deg. 17'41" W and extending it in a 120 degree (S120E) direction for 1700 meters. The baseline was labeled 5000N. Eight square centimeter lime green flags on a 0.67-meter wire were emplaced every 25 meters along the baseline. The flagging on wires was the only method of grid marking because of the frozen ground and because there were no trees to place flagging. The survey lines were emplaced every 100 meters perpendicular to the baseline and were also marked by eight square centimeter flagging every 25 meters, but the flags were of a blaze orange colour. The grid coordinates were marked on each survey line flagging. The survey lines were numbered 5000E to 6700E, inclusive and the survey stations were number 4675N to 5325N, inclusive. Thus, each survey line was 650 meters long for a total survey line length of 11,700 meters.

## **INSTRUMENTATION**

The magnetic survey was carried out with two model G-856 proton precession magnetometers manufactured by Geometrics of San Jose, California. One was used as a base station and the other was used as the field mobile unit. This instrument reads out directly in nanoTeslas (nT) to an accuracy of  $\pm 1$  nT, over a range of 20,000 - 100,000 nT. The operating temperature range is -40° to +50° C, and its gradient tolerance is up to 3,000 gammas per meter.

### **THEORY**

Only two commonly occurring minerals are strongly magnetic, magnetite and pyrrhotite and therefore magnetic surveys are used to detect the presence of these minerals in varying concentrations, as follows:

- Magnetite and pyrrhotite may occur with economic mineralization on a specific property and therefore a magnetic survey may be used to locate this mineralization.
- Different rock types have different background amounts of magnetite (and pyrrhotite in some rare cases) and thus a magnetic survey can be used to map lithology. Generally, the more basic a rock-type, the more magnetite it may contain, though this is not always the case. In mapping lithology, not only is the amount of magnetite important, but also the way it may occur. For example, young basic rocks are often characterized by thumbprint-type magnetic highs and lows.
- Magnetic surveys can also be used in mapping geologic structure. For example, the action of faults and shear zones will often chemically alter magnetite and thus these will show up as lineal-shaped lows. Or, sometimes lineal-shaped highs or a lineation of highs will be reflecting a fault since a magnetite-containing magmatic fluid has intruded along a zone of weakness, being the fault.

### SURVEY PROCEDURE

Readings of the earth's total magnetic field were taken every 12.5 meters along all 18 northsouth survey lines with a separation of 100-meters. The total amount of surveying is 11,700 meters.

The diurnal variation was monitored in the field by a base station set up within the grid area to take a reading every 15 seconds.

### **DATA REDUCTION**

The data was input into a computer and then corrected for diurnal drift using the data from the magnetic base station. Using Geosoft software, it was next plotted with 55,600 nT subtracted from each posted value and contoured at an interval of 5 nT on a base map, GP-1, with a scale of 1:10,000.

## **DISCUSSION OF RESULTS**

The magnetic field within the survey area is of unusual low intensity varying from a low of 55,492 nT to a high of 55,737 nT to give a range of only 245 nT. This quiet magnetic field is typical of a sedimentary rock-types which are known to occur on the property and are of the Nicola Group.

The data as shown on map GP-1 exhibits an high number of lineations, both high and low types. These have been drawn on the map by the writer. The prominent directions for both lineal highs and lows are north-northwesterly and east-northeasterly.

The low lineations usually reflect geologic structure such as faults, shears and contacts since the magnetite along structures are often destroyed.

The lineal magnetic highs are probably reflecting intrusive dykes. Another possible cause are volcanic layers perhaps within the Nicola volcanics and/or rhyolites of the Kamloops Group. It is doubtful that the magnetic highs are reflecting basic or ultra basic volcanics of the Kamloops Group since these are always highly magnetic.

#### **REFERENCES**

#### SELECTED BIBLIOGRAPHY

Lindinger, L. J. (1995) EPI 1-8 Claims, prepared for the Napier Group. ARIS Report #24249.

- Lindinger, L. J. (2010) <u>Geochemical Assessment Report on the Nap Gold-Copper-Silver</u> <u>Mineral Occurrence</u>, prepared for the Ministry of Energy and Mines. ARIS Report #31386.
- Gruenwald, W. (1989) <u>Geophysical and Geological Report Covering: Stump 1 Claim</u>, prepared for Geoquest Consulting Ltd. ARIS Report #19145.
- Mear, L. E. (1990) <u>STMP Mineral Claims</u>, prepared for Lloyd E. Mear. ARIS Report #19919.
- Mear, L. E. (1991) <u>STMP Mineral Claims</u>, prepared for Lloyd E. Mear. ARIS Report #21242.
- Rebagliati, C. M. (1973) <u>Geology, Geochemistry, and Geophysics of the Napier Lake</u> <u>Property</u>, prepared for Newconex Canadian Exploration Ltd. ARIS Report #04500.
- Richardson, P.W. (1977) <u>Electromagnetic Survey</u>, prepared for Newconex Canadian Exploration Ltd. ARIS Report #06308.

### **GEOPHYSICIST'S CERTIFICATE**

I, DAVID G. MARK, of the City of Surrey, in the Province of British Columbia, do hereby certify that:

I am registered as a Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the Province of British Columbia.

I am a Consulting Geophysicist of Geotronics Consulting Inc, with offices at  $6204 - 125^{\text{th}}$  Street, Surrey, British Columbia.

I further certify that:

- 1. I am a graduate of the University of British Columbia (1968) and hold a B.Sc. degree in Geophysics.
- 2. I have been practicing my profession for the past 41 years, and have been active in the mining industry for the past 44 years.
- 3. This report is compiled from data obtained from a magnetic geophysical survey carried out by a crew of Geotronics Consulting supervised by me over a grid within the Nap Property located on Napier Lake located 28 km south of the city of Kamloops, within the Kamloops Mining Division of British Columbia. The work was done during the period of December 1<sup>st</sup> to 7<sup>th</sup> 2010.
- 4. I do not hold any interest in Dakar Resource Corp., nor in the property discussed in this report, nor in any other property held by this company, nor do I expect to receive any interest as a result of writing this report.

David G. Mark, P.Geo. Geophysicist March 2, 2011

## **AFFIDAVIT OF EXPENSES**

Grid emplacement as well as magnetic surveying was carried out on a grid within the Nap Property, which which is located 28 km south of the city of Kamloops, B.C. and just to the north of Stump Lake along Highway 5A. This work was done during the period of December 1<sup>st</sup> to 7<sup>th</sup>, 2010, and to the value of the following:

#### FIELD (Grid Emplacement and Magnetic Surveying):

GRAND TOTAL		\$9,500.00
TOTAL	\$1,700.00	<u>\$1,700.00</u>
Geophysicist (David Mark) one day @ \$600/day	<u>\$600.00</u>	
Data reduction and mapping, 22 hours @ \$50/hour	\$1,100.00	
DATA REDUCTION and REPORT:		
TOTAL	\$7,800.00	\$7,800.00
5-man crew, 2.5 days @ \$2,600/day	<u>\$6,500.00</u>	
Mob/demob	\$1,300.00	

Respectfully submitted, Geotronics Consulting Inc.

David G. Mark, P.Geo,	
Geophysicist	March 2, 2011







